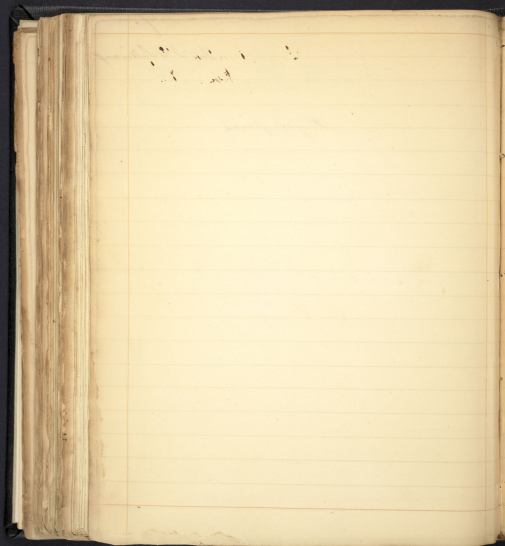


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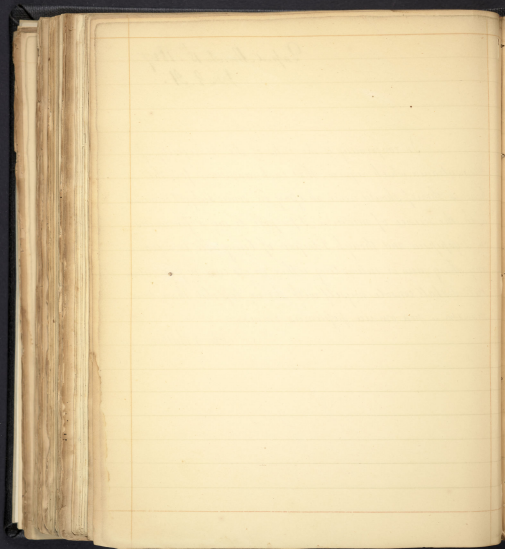
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Pap. March 15<sup>th</sup>. 1827  
W. E. A.

In conformity to the rules of the University of Pennsylvania, which require, that each candidate for the honours thereof should write an essay on some subject connected with the science of medicine, I purpose to say a few words on Dyspepsia, and though I despair of being able to advance any thing new or interesting either in its cure or prevention, still I shall console myself with the no less old than true maxim *non omnia possumus omnes*.

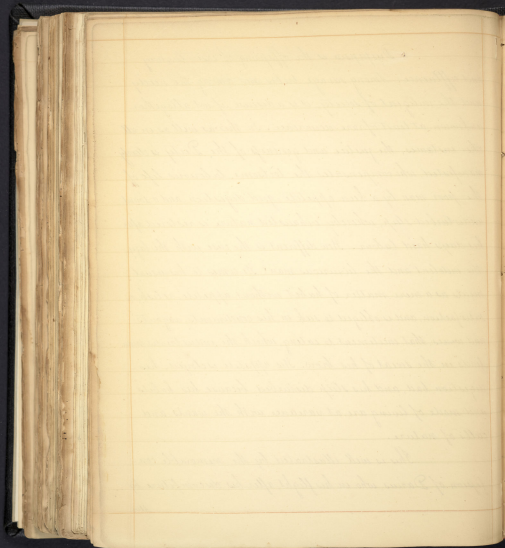
John J. Sullivan





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Dyspepsia is the offspring of ease, luxury and affluence. Among savage tribes and among the needy and the indigent of society, it is a disease, if not altogether unknown, at least of rare occurrence. In this as well as in all other instances, the justice and goodness of the Deity is clearly manifested, who compensates the toilsome, labourous life of the poor man by a keen appetite, good digestion and a sound undisturbed sleep, whereby exhausted nature is restored after his day's hard labour. How different is the case with the lazy, the indolent and the luxurious man! He comes to his usual meals as a mere matter of habit, without appetite, relish, or satisfaction, and is obliged to sub in his condiments, ragouts, and wines, that incitement to eating, which the industrious man finds in the sweat of his brow. His appetite is cloyed, his digestion bad, and his sleep disturbed, because his habits and mode of living are at variance with the wants and calls of nature.

This is well illustrated by the memorable confession of Darius, who in his flight, after his discomfiture by

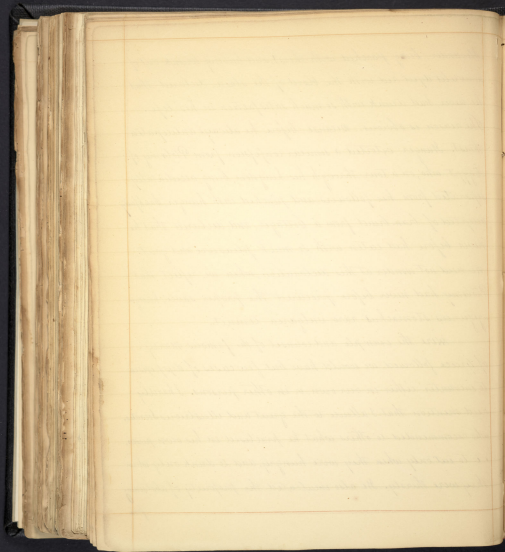


Alexander, being parched with thirst, and having drunk out of a vessel dyed red with the blood of the slain, declared that he never had drunk with so much satisfaction in his life.

The reason is obvious. Because before he always anticipated thirst. Hunger extorted a similar confession from Ptolemy of Egypt, who, on a tour through his kingdom, being accidentally separated from his followers, and pinched with hunger, thankfully accepted of bran-bread from a cottager, and declared that he never before had eaten with so much pleasure and goit.

We need not wonder at this declaration, when we reflect, that Ptolemy had never before procured the proper sauce, *hungry-junius stomachus raro vulgaria temnit.*

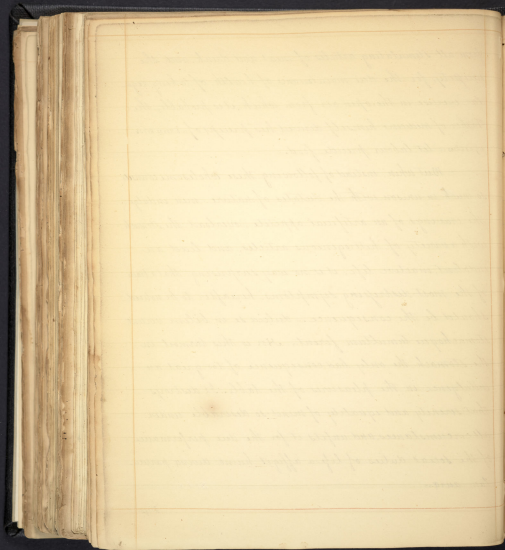
Were the example and counsel of the famous martyr of Greece followed, we would have but few cases of dyspepsia to encounter either in our own, or in other persons. I hardly need mention that I allude to the great and illustrious Socrates, who recommended to others what he practised in his own person, i.e. to eat only when they were hungry, and to drink only when they were thirsty. He also inculcated the propriety of abstaining  
from



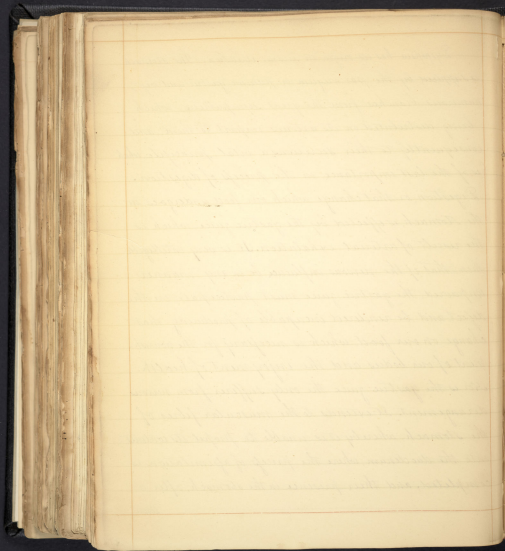
from all stimulating articles of meat and drink, and the necessity, for the due maintenance of health, of taking regular exercise in the open air, from which, it is probable, the Father of medicine himself derived his precept of *moderata exercitio* let labour precede food.

But when, instead of following these wholesome counsels so much in unison with the dictates of nature, men indulge the cravings of an artificial appetite, overload the stomach with a variety of heterogeneous articles, and lead an indolent, inactive life, it is no way surprising, that a train of the most distressing symptoms, hereafter to be noticed, should be the consequence... *dulcia se in bilem vertunt* *Stomachique tumultum ferient.* Nor is this turmoil in the stomach the only bad consequence of too great an indulgence in the pleasures of the table. It destroys that serenity and equality of mind so desirable under all circumstances, and unfits it for the due performance of the social duties of life - *affligit humo diving partem* *laniat auras.*

Dys.



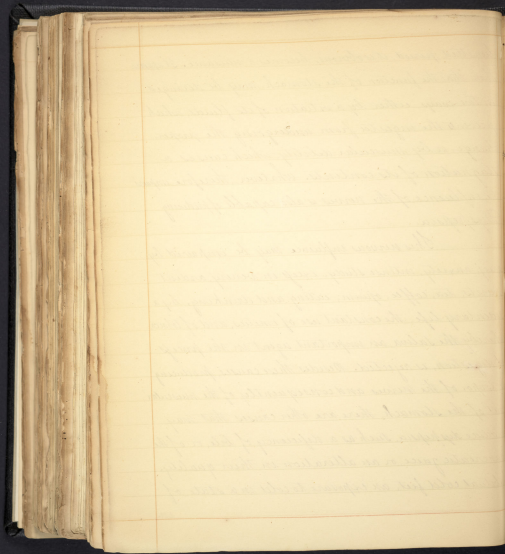
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Dyspepsia has its origin in nervous irritation. The stomach is supplied by the par vagum or pneumo-gastric and by numerous branches from the great Sympathetic, which being distributed on its arteries impart to them, and consequently to their secretions, a vital principle, which is of the last importance in the process of digestion. Digestion, or that change which our food undergoes in the stomach, is effected by the gastric juice, which is the result of arterial exhalation. It is very intelligible then, that if the nervous influence be in any manner impaired, the gastric juice must participate in the defect, and be rendered incapable of producing that change on our food, which is necessary for the nourishment of our bodies and the enjoyment of health. Nor is the gastric juice the only sufferer from nervous derangement. It extends to the muscular fibres of the stomach, whereby it is unable to propel its contents into the duodenum, where the process of assimilation is completed, and their presence in the stomach, after a  
time.





limited period, it is obvious, becomes a nuisance. It appears then, that the function of the stomach may be deranged in two ways, either by a vitiation of its fluids, which prevents the ingesta from undergoing the proper change, or by muscular debility, which causes a stagnation of its contents. Whatever, therefore, impairs the influence of the nerves is also capable of producing Dyspepsia.

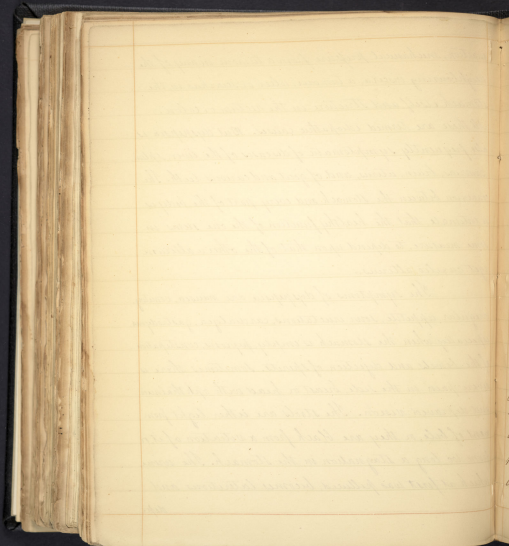
This nervous influence may be impaired by grief, anxiety, intense study, excess in venery, ardent spirits, tea, coffee, opium, eating and drinking, by a sedentary life, the constant use of emetics, and of tobacco whereby the saliva, an important agent in the process of digestion, is rejected. Besides these causes, producing a torpor of the nerves and consequently of the muscular coat of the stomach, there are other causes that may produce dyspepsia, such as a deficiency of bile, or of the pancreatic juice, or an alteration in their quality, habitual cold feet, an exposure to cold in a state of



inaction, mechanical pressure from a tumour in any of the neighbouring viscera, a tumour, ulcer or scirrhus in the stomach itself, and stricture in the rectum or colon.

All these are termed idiopathic causes. But dyspepsia is also frequently symptomatic of diseases of the liver, spleen, pancreas, brain, uterus, and of gout and carious teeth. The connexion between the stomach and every part of the body is so intimate, that the healthy function of the one seems, in some measure, to depend upon that of the other - alterum eget auxilio alterius.

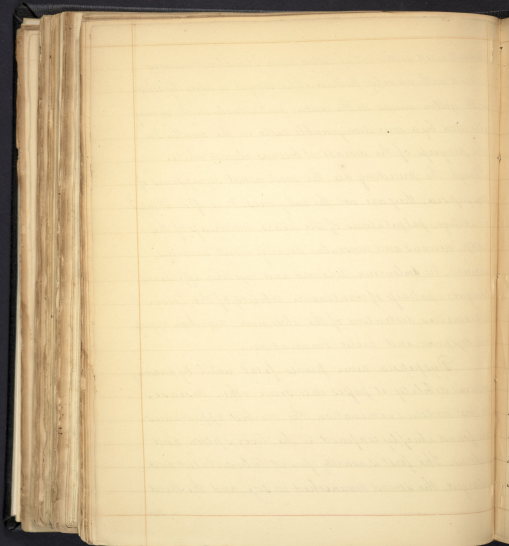
The symptoms of dyspepsia are nausea, vomiting, irregular appetite, sour eructations, cardialgia, gastrodynia, especially when the stomach is empty, pyrosis, constipation of the bowels, and dejection of spirits. Sometimes there is severe pain in the side, breast, or head with ophthalmia and depraved vision. The stools are either light from want of bile, or they are black from a vitiation of it, or from too long a stagnation in the stomach. The urine, which at first was pellucid, becomes lactitious and  
dep.



deposits a red sediment of lithic acid. It is also sometimes covered with an oily pellicle. The tongue is usually coated with yellow mucus in the centre, particularly in the morning attended by a sour disagreeable taste in the mouth. In the progress of the disease it becomes almost white.

Though the preceding are the most usual symptoms of dyspepsia, they are not the only ones. It is often attended by vertigo, palpitations of the heart, tenderness of the scalp, nervous and muscular derangement, tinnitis aurium, tic douloureux, tetanoid and hysteric affections, languor, paleness of countenance, debility of the lower extremities, distention of the abdomen, diarrhoea, oppressive dyspnoea and hectic emaciation.

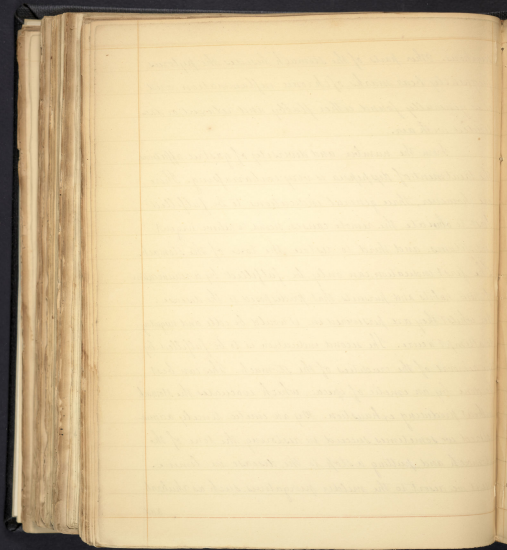
Dyspepsia never proves fatal until by producing general debility it passes into some other disease. In post mortem examination, the morbid appearances are found chiefly confined to the liver, spleen, and pylorus. The first is usually found tuberculated and enlarged, the second diminished in size, and the third



7  
surroundings. Other parts of the stomach besides the pylorus, frequently bear marks of chronic inflammation, and it is generally found either flabby and relaxed, or distended with air.

From the number and diversity of gastric affections, the treatment of dyspepsia is very embarrassing. There are, however, three general indications to be fulfilled. First, to obviate the remote causes, second, to relieve urgent symptoms, and third, to restore the tone of the stomach. The first indication can only be fulfilled by a renunciation of those habits and pursuits that predisposed to the disease. For whilst they are persevered in, it would be idle and nugatory to attempt a cure. The second indication is to be fulfilled by the removal of the crudities of the stomach. This can best be done by an emetic of ipecac, which evacuates the stomach without producing exhaustion. By an emetic timely administered, we sometimes succeed in restoring the tone of the stomach and putting a stop to the disease in limine. Next we resort to the milder purgatives, such as rhubarb

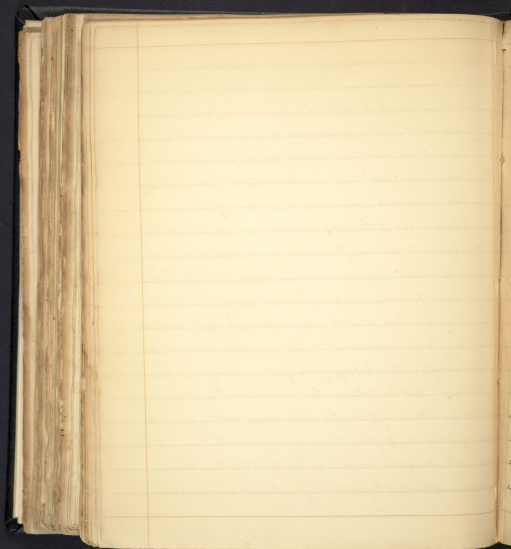
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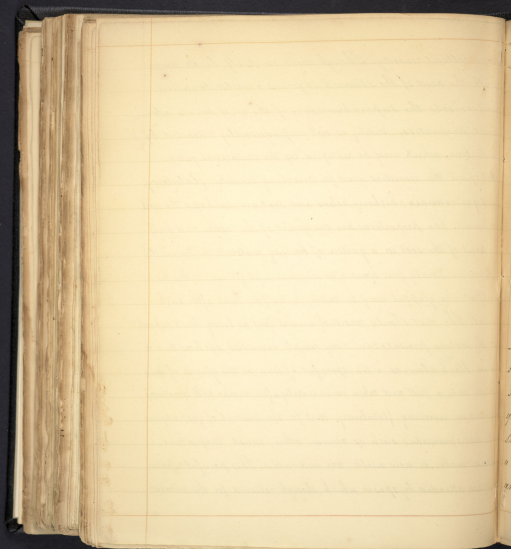
and magnesia,enna and gentian, or lac sulphuris and magnesia in equal portions. These articles open the bowels and relieve the stomach by their absorbent and antacid properties. The saline and drastic purgatives are inadmissible, as having a tendency to increase the debility already existing in the alimentary canal, and consequently to produce the effect they were intended to remove, namely costiveness.

Acidity is one of the most distressing symptoms attendant on dyspepsia. It produces flatulency, eructations, cardialgia, gastrodynia and irregular cravings. We are told by Gallen that it arises from the retention of ascendent matters too long in the stomach, which may be owing to the weakness of its muscular fibres, or to some impediment to its evacuation through the pyloric orifice. Scirrhusity of the pylorus may cause this impediment, and he tells us, that it is invariably attended by acidity. Arising from the latter cause, acidity is incurable, arising from the former, it may be corrected by lime water and milk in equal portions, or by the alkalis. When acidity is attended by costiveness, calcined magnesia is



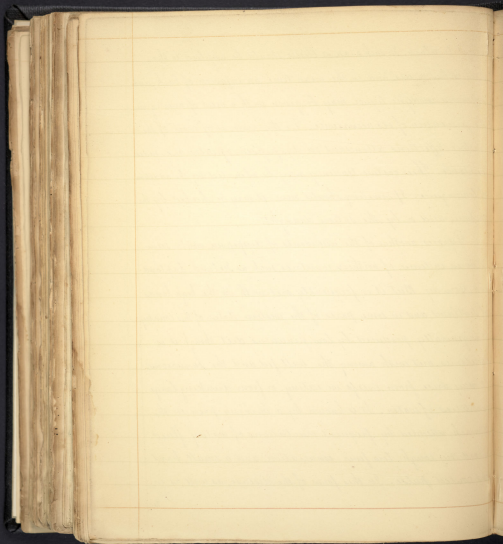
an excellent remedy. Though inert in itself, by an union with the acid of the stomach it forms a mild laxative, and corrects the superabundance of the acid by its absorbent properties. Acidity is not unfrequently attended by diarrhoea, which may be rectified by the cretaceous julap.

But of all the remedies used for correcting acidity, flatulency, and gastrodynia, hickory ashes and soot are, perhaps, the most efficient. The proportions are one quart of the ashes and half a pint of the soot in a gallon of boiling water to be frequently shaken for twenty four hours, after which it is fit for use. of this tea half a wine glassful may be taken in half an hour after each meal. The diet should consist of animal food, as being least dependent to the acrid fermentation. Very simple remedies, such as two or three black almonds, a tea spoonful of bran, or two grains of opium made into a pill and taken immediately after meals, will sometimes succeed in removing flatulency. But for the removal of gastrodynia the antispasmodics such as opium, ether, musk, turpentine, warm water, or new milk, are indicated. This painful affection is often attended by spasm, which, though relieved for the moment,



is apt to return. In such a case, a blister should be applied to the scrobiculus cordis, and in the mean time an infusion of bark, and Hoffman's anodyne liquor may be given with a view of aiding in the prevention of its recurrence. For the removal of most of the gastric affections attendant on dyspepsia, opiates are indispensable. Their costive tendency may be obviated by the addition of lemon juice. If vomiting should occur, it may be checked by the carbonic acid or by the saline draught.

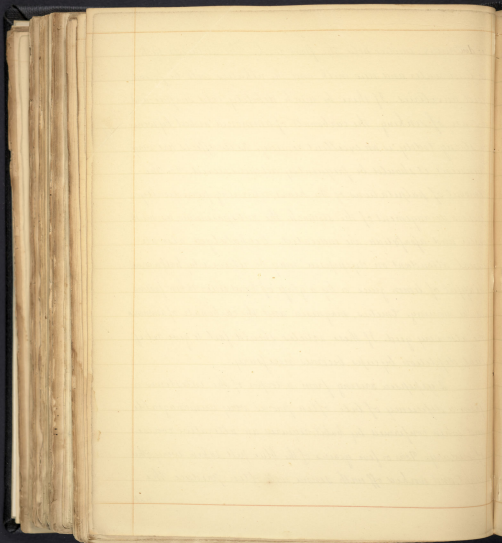
Pyrosis, another of the attendants of dyspepsia, would seem to be an endemic of northern countries, such as Iceland, Lapland, and Norway. But it is frequently met with in the high lands of Scotland, and in some parts of the western states of this country. It is generally produced by low, pinurious diet, though it is sometimes met with among the well fed and the luxurious. It may arise from excess in eating, or from drinking large quantities of water. It is known by a burning pain in the stomach, attended by frequent eructations of watery fluid, a hard, dry cough, low fever, emaciation, and a small, hard and corded pulse. In this form of the disease, as well as in



to doleours. emetics hold the first rank. The antacids, such as lime water and new milk, and the alkalis will be found good auxiliaries. If there be much debility, cold surface, and a sense of sinking, the carbonate of ammonia aided by wine or strong toddy, is an excellent remedy. As its effects are very transient, it should be frequently administered. For the removal of palpitations of the heart, returning periodically from a derangement of the stomach, the antispasmodics, as musk, castor and asafetida are indicated. Cephalalgia, also an usual attendant on dyspepsia, may be relieved by half a wine glassful of lemon juice, or by a glass of hard cider taken fasting in the morning. Emetics, magnesia and the carbonate of ammonia are also very good. If these articles should fail to give relief, local depletion by cups becomes necessary.

Dyspepsia arising from a torpor of the intestines, or from a deficiency of bile often proves very unmanageable, and when confirmed by habit, requires an alterative course of mercury. Four or five grains of the blue pill, taken every other night, and worked off with senna, will often produce the

hap.

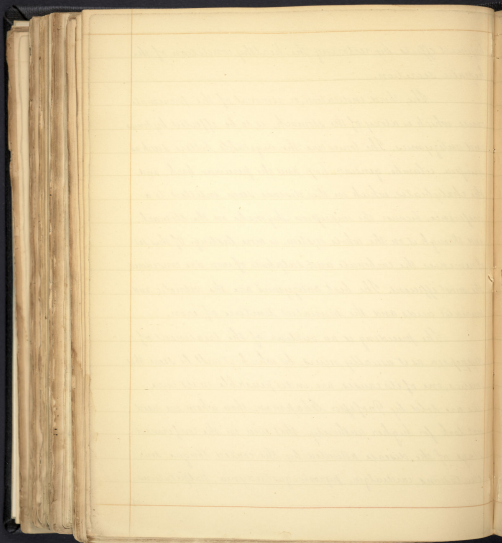




happiest effects by restoring the healthy condition of the hepatic secretion.

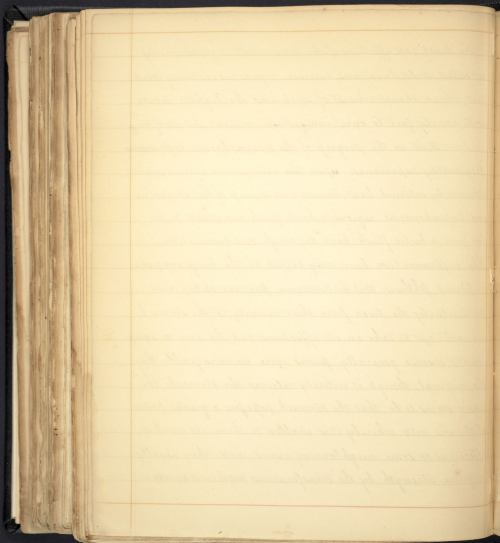
The third indication, or removal of the proximate cause, which is atony of the stomach, is to be effected by tonics and antizymics. The tonics are the vegetable bitters, such as quapica, columbo, gentian, hop and the peruvian bark, and the chalybeates, which in this disease seem entitled to a preference, because the impression they make on the stomach, and through it, on the whole system, is more lasting. Of this set of remedies the carbonate and sulphate of iron are considered the most efficient. The best antizymous are the vitriolic and muriatic acids, and the muriated tincture of iron.

The preceding is an outline of the treatment of dyspepsia, as it usually occurs, by which it will be seen that emetics, one of its causes, are indispensable in its cure. We are told by Professor Chapman, than whom we need not look for higher authority; that even in the confirmed stage of the disease attended by the coated tongue, sour eructations, cardialgia, pyrosis, gastralgia, palpitations

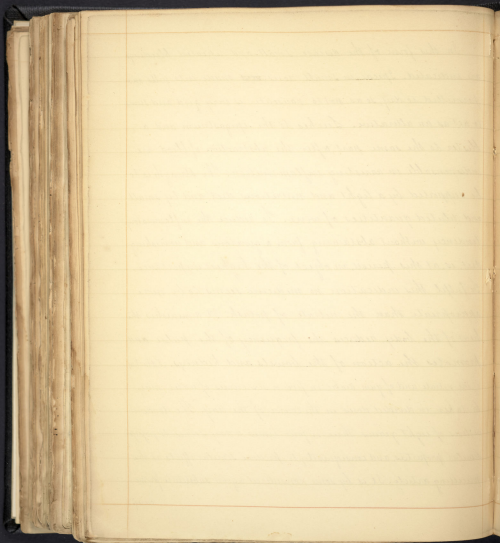


of the heart and affections of the head, emetics judiciously repeated, mild laxatives, exercise, regulated clothing and diet, which should consist of milk and the lighter meats, will rarely fail to cure indigestion without the use of tonics. But in the progress of the disease, chronic inflammation frequently supervenes upon the nervous and muscular debility, attended by internal heat, tension and soreness of the epigastric and hypochondriac regions, a hard, quick and corded pulse, low fever, a hectic flush, hard, dry cough and emaciation.

The inflammation here may extend to the lungs and produce confirmed phthisis. But the duodenum, pancreas, spleen and particularly the liver from their vicinity to the stomach are most apt to take on its affections, and the new or symptomatic disease generally proves more unmanageable than the original, though it entirely relieves the stomach. The reason seems to be, that the stomach possesses a greater portion of the vis vitæ, whereby it is enabled to throw its morbid affections on some neighbouring viscus, and they usually acquire strength by the transfer visus acquirunt vires.

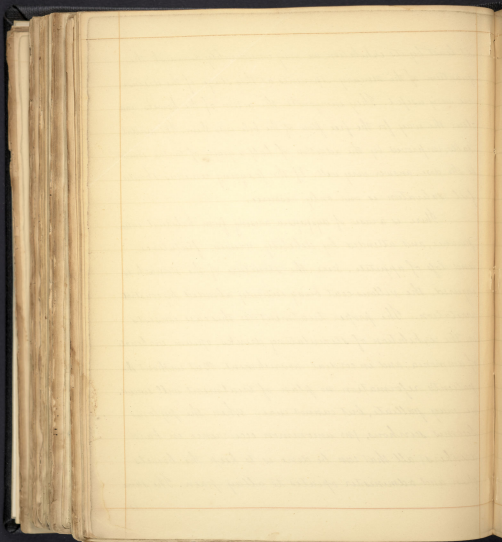


In this form of the disease small and repeated bleedings are indicated. Spicae in small doses, ~~used~~ made into pills and permitted to dry, so as not to nauseate, is very good and seems to act as an alterative. Leeches to the epigastrium and a blister to the same part, after the abstraction of blood, are indispensable in arresting inflammation. The strength is to be supported by a light and nutritious diet, and by small and diluted quantities of wine. To reduce the inflammatory tendency without abstaining from a generous and nourishing diet, is, at this period, an object of the highest importance. To fulfil this indication no medicine seems to be more appropriate than the nitrate of potash. It diminishes the heat of the body, reduces the frequency of the pulse and promotes the action of the bowels and kidneys. A drachm of the nitrate and of gum arabic in five or six ounces of water may be taken in divided doses in the course of the day. The dandelion in doses of eight grains three or four times a day, seems to possess similar properties, and consequently to produce similar effects as the preceding article. It is by some considered a good substitute for mercury.



At least by its exhibition we may considerably diminish the  
quantity of the mercury. Spicums at this stage of the disease  
are very useful. They invigorate the action of the bowels, and  
clear the way for the free flow of the bile into them. The neutral  
salts, improved by the addition of half a grain of tartar emetic  
to the dose, answer very well. If the foregoing remedies should  
fail, salivation is our only resource.

There is a case of dyspepsia arising from habitual intem-  
perance, and attended by debility, nausea, flatulence,  
and loss of appetite. Here the structure of the stomach is  
injured, the villous coat being entirely abraded by constant  
irritation. The proper treatment in this case consists  
in the exhibition of stimulating drinks, opium, carbonate  
of ammonia, and in cordial nourishment. But without the  
patient's reformation no plan of treatment will succeed.  
we may palliate, but cannot cure. When the pylorus  
becomes scirrhous, (no uncommon occurrence in hard  
drinkers) all that can be done is to keep the bowels  
open and administer opiates to allay pain. The same

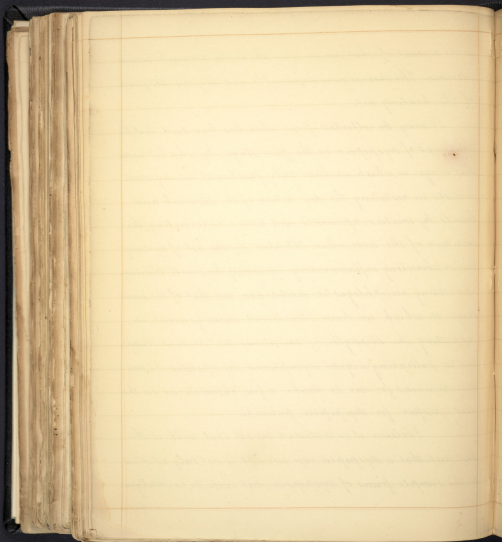




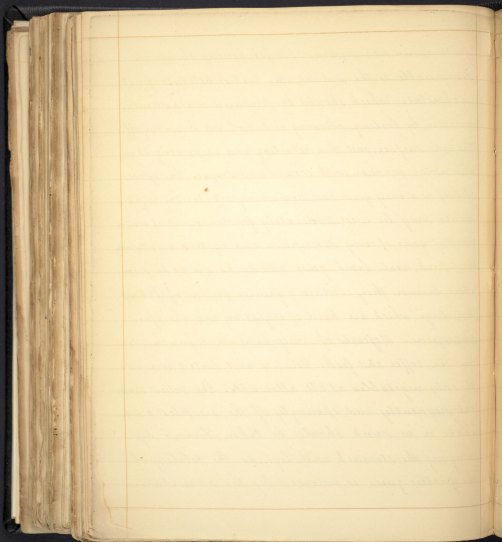
is the amount of what can be done when the stomach becomes ulcerous. The case is now deplorable and beyond the power of the healing art.

It may be collected from what has been said, that the treatment of dyspepsia in the first stage, by which I mean that stage in which we have only functional derangement, consists in restoring the due action of the stomach and bowels by emetics, aperients and tonics, in correcting the secretion of the liver, when vitiated, by the use of mercury, and in obviating inflammatory tendency by small bleedings and cooling antiphlogistic medicines, and that of the second stage, in which we have structural derangement, in supporting the strength by nutritious diet, cordial drinks, and in palliating urgent symptoms by opiates. It now only remains for me to make a few observations on the diet proper for dyspeptic patients.

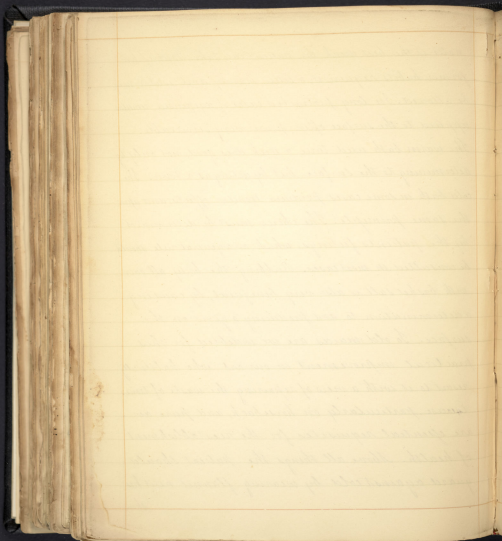
I believe it is conceded by all that milk is the best diet that a dyspeptic can use. It is not only adapted to the simple forms of dyspepsia, but even to cardiacal gas.



gastredynia and pyrosis. If milk, however, should be disagreeable to the patient, the best substitute for it is chocolate, which should be prepared in a particular manner, by boiling, allowing it to cool, and skimming off the oily surface, and then reboiling and improving it in the usual manner with cream and sugar. The spine of beef is a very good and nourishing article. The light meats may be used moderately for dinner. Beef, mutton, poultry, game of every description and oysters are allowable. But pork, veal, lamb, geese and ducks are to be prohibited, because they contain a greater portion of fat and mucilage, which are hard of digestion and therefore oppressive. Desserts of every kind are injurious. So are tea, coffee and fish. Potatoes and boiled rice are the only vegetables at all allowable. The patient should eat frequently and sparingly of the simplest articles. Little or no drink should be taken, because by clogging the stomach with liquids, the debility of the gastric juice is increased by the admixture.



water is the best drink the patient can take. But if his former habits require it, a little brandy and water may be allowed. In long protracted cases of dyspepsia, remedies applied to the surface often prove very serviceable. The warm bath used twice a week does good, not only by determining to the surface, but by acting as a tonic. The cold bath in some cases produces similar effects, and upon the same principle. The choice must be determined by the patient's feelings, which, as a general rule, should be consulted in most cases. Rubbing the body all over with basket salt is also very beneficial, by causing a determination to, and producing a glow on the surface. To old maids are we indebted for this practical improvement in our art, who habitually resort to it with a view of repairing the waste of time. Exercise, particularly on horseback, and pure air are essential requisites for the reestablishment of health. Above all things the patient should guard against cold by wearing flannel next his skin.



skin, and in case of cold feet, should have his socks  
dusted with cayenne pepper. He should rest, but  
not sleep after meals. In short, the prophylactic  
course may be summed up in the following  
adage: *si tibi deficiant medici, medici tibi fiant*  
*hoc tua, mens lecta, requies, moderata dicta.*  
in plain english thus: the best physicians are, Doctor  
Quiet, Doctor Merryman and Doctor Diet.

*si me Gispini scriinia lippa computas, putis, verbum non amplius*  
*addam.*

